

REMARKS

I. Status of the Application

By the present Amendment, Applicants amend claims 1 and 6. No new matter is added. Claims 1-6 are all the claims currently pending in the present application. Claims 2-5 have been allowed. Claims 1 and 6 have been rejected. The present Amendment addresses each point of rejection raised by the Examiner. Favorable reconsideration is respectfully requested.

II. Claim Rejections - 35 U.S.C. § 102(e)

Claims 1 and 6 stand rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by U.S. Patent No. 7,088,458 to Wegmann. Applicants are amending claims 1 and 6 to further clarify the claimed invention. Applicants respectfully traverse this ground of rejection.

As discussed in the Amendment filed on February 28, 2007, Wegmann is directed to a combined wavefront and distortion measurement apparatus (col. 2, lines 6-8). Fig. 3 shows a structure plate unit 8 which is used as an object structure unit and an image structure unit (col. 5, lines 37-41). The checkerboard-grid pattern 8b serves as a coherence mask on the object side, and as a diffraction grating on the image side (col. 5, lines 45-50). Wegmann discloses that the dimensionality of the image structure is always matched to the object structure (col. 2, lines 7-16). For example, as shown in Fig. 5, a measurement apparatus uses a first pinhole mask 2b on the object side, and a second pinhole mask 3a on the image side (col. 6, lines 32-44).

Applicants submit that Wegmann fails to teach or suggest a wavefront measurement apparatus in which the mask structure has a different dimensionality than the grating structure, as recited in claim 1. For example, if the mask structure has a one-dimensional structure pattern, the grating structure has a two-dimensional structure pattern, and vice versa. In contrast, as

discussed above, Wegmann discloses that the image structure always has the same dimensionality as the grating structure.

In response to this argument, the Examiner asserts that claim 1 “does not limit what aspect of ‘dimensionality’ is being claimed. Any structural difference between the mask structure and the grating structure would meet the claimed limitation of ‘different dimensionality.’” Applicants respectfully disagree. The last sentence of paragraph [004] of the specification states that “the designation ‘one- or two-dimensional’ means structures which are periodic in one or in two non-parallel directions, and consequently lead in the diffraction diagram to the diffraction patterns in one or in two non-parallel directions.” Therefore, Applicants submit that the Examiner’s broad interpretation of the term “dimensionality” is improper, as Applicants have explicitly defined the term in the specification.

However, in order to obviate the issue and expedite prosecution, Applicants are amending claim 1 to specifically recite that “the mask structure which is arranged on the object side comprises one or more mask structure patterns with a periodicity in exactly one direction, and the grating structure to be arranged on the image side comprises one or more grating structure patterns with a periodicity in exactly two non-parallel directions,” or “the mask structure comprises one or more mask structure patterns with a periodicity in exactly two non-parallel directions, and the grating structure comprises one or more grating structure patterns with a periodicity in exactly one direction.” Therefore, claim 1 clearly recites that the mask structure has a periodicity in one direction and the grating structure has a periodicity in two directions, or vice versa. In contrast, Wegmann discloses that the dimensionality of the image structure is always matched to the object structure.

Accordingly, Applicants submit that claim 1 distinguishes over Wegmann at least by virtue of the aforementioned differences, as well as its additionally recited features. Because claim 6 recites features similar to those discussed above with regard to claim 1, Applicants submit that claim 6 distinguishes over Wegmann at least for similar reasons.

III. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.


Respectfully submitted,

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